

I Claim:

1. A method for determining the neck movement pattern of a subject, which comprises:

placing markers on the shoulders and on the head of the subject;

recording a head/body movement of the subject with the aid of the markers moving with the body of the subject;

acquiring a locus of each marker in three-dimensional space as a function of time and storing the loci as a data record;

using the data record to form a mean value of the loci representing a shoulder movement and a difference between the mean value and the loci representing a head movement; and

generating a profile of the neck movement pattern derived therefrom in at least one space coordinate.

2. The method according to claim 1, which comprises forming the difference in each of three space coordinates, and generating a two-dimensional movement pattern.

3. The method according to claim 1, which comprises determining from the data record a projection of the locus onto the datum plane of a Cartesian coordinate system.

4. The method according to claim 1, which comprises determining from the data record a projection of each locus onto the datum plane of a Cartesian coordinate system.

5. The method according to claim 1, which comprises determining a resulting head movement from the mean value of the loci representing the movements of a marker moving with the forehead of the subject and a marker moving with the back of the head of the subject.

6. The method according to claim 1, which comprises determining a degree of agreement between a number of appropriately determined difference patterns stored as reference and a current difference pattern of the neck movement.

7. An apparatus for evaluating a movement pattern of a subject having shoulders and a head, comprising:

a plurality of markers respectively disposed on the shoulders and on the head of the subject;

a data processing system connected to a receiver configuration for recording a locus of each of said markers, said data processing system comprising a processing stage for

calculating a data record, representing the locus, from signals of the receiver configuration;

said data processing system further comprising an analysis module with a subtraction stage configured to use the data record to form a difference between a mean value of the loci representing movements of the shoulder and a locus representing the head movement, and generating a profile of a neck movement pattern derived therefrom in at least one of three space coordinates.

8. The apparatus according to claim 7, wherein said receiver configuration comprises two receivers disposed orthogonally relative to one another.

9. The apparatus according to claim 7, wherein said processing stage is configured to assign the locus of each marker as a data field to the data record.

10. The apparatus according to claim 7, which further comprises a temporary data record memory arranged downstream of the processing stage in a signal processing direction.

11. The apparatus according to claim 7, which further comprises an output module connected to receive from said data processing system the profile of the neck movement pattern

determined by the subtraction for displaying the movement
pattern.

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